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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,150	12/21/2001	Soichi Nagano	1163-0383P	6523
2292	7590	01/31/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH			KNEPPER, DAVID D	
PO BOX 747				
FALLS CHURCH, VA 22040-0747			ART UNIT	PAPER NUMBER
			2654	

DATE MAILED: 01/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/024,150	NAGANO ET AL.	
	Examiner David D. Knepper	Art Unit 2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 21 Oct 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-12 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-12 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 21 December 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

1. Applicant's correspondence filed on 21 October 2005 has been received and considered.
- Claims 1-12 are pending.

Priority Claims

2. The applicant(s) should check their filing receipts and/or the Patent Application Information Retrieval (PAIR) system for the acknowledgment of their **domestic** priority or benefit claims (if any) under 35 USC 119(e), 120 or 121 (37 CFR 1.78).
3. The receipt of Drawings is acknowledged.

Claims

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
5. Claims 1-12 are rejected under 35 U.S.C. § 103 as being unpatentable over Peters (6,018,337) in view of Okada (5,809,454) and Lee (Time Compression and Expansion of Speech by the Sampling Method).

As per claim 1, “sound reproduction” is taught by Peters with his media composer (see title):

“detecting a key operation for fast forward/reverse” (his adjust the speed of the player in either a forward or reverse direction, col. 1, lines 24-25 using a three-button system, col. 1, line 32);

“decoding a specified reproduced frame number of frames and for skipping a specified skipped frame number of frames in the audio data during the fast forward/reverse” (suggested by his ability to adjust the threshold and maximum speeds...allows the user or designer to customize the ‘feel’ of the workstation, col. 5, lines 29-37 – see Okada, col. 7, lines 2-10 where frame memory 34 supplies one frame of audio signals, already stored in the A area, to the voice speed converter and his Voice Speed conversion In Fast Playback Mode in col. 7-8 – details for skipping or discarding frames is suggested by Lee on pages 740-741);

“providing said specified reproduced frame number decoding section with the specified reproduced frame number for the fast forward/reverse” (his system teaches that he may include editing operations... displayed in a outline format in the timeline display, col. 3, lines 49-52 indicating that typical timeline displays such as his timeline position indicator 30, fig. 1 can be used to locate and identify the proper frame for editing in combination with forward/reverse playback); and

“providing said specified reproduced frame number decoding section with the specified skipped frame number” (his system teaches that he may include editing operations... displayed in a outline format in the timeline display, col. 3, lines 49-52 indicating that typical

timeline displays such as his timeline position indicator 30, fig. 1 can be used to locate and identify the proper frame for editing in combination with forward/reverse playback).

It is noted that Peters does not explicitly teach the details for performing fast forward/reverse by manipulating “frames”. However, he teaches that the use of fast forward/reverse is so notoriously well known that the use of a shuttle knob, buttons or a mouse to provide a plethora of options for playback are all well known combinations of the same general idea (see column 1). Peters similarly does not teach any particular format for the video or audio portions but clearly teaches that both are equally well known compositions, in combination or alone (see column 3, lines 1-9) and that using a format that allows them to play frame by frame is preferred (col. 1, line 26 and col. 4, line 66). Peters does teach skipping frames in col.5, lines 1-4 where he relates the distance a mouse travels to the current frame position thereby teaching that it is obvious to skip around quickly to desired frames of information. In col. 5, lines 8-9 Peters teaches that it would have been obvious to substitute key presses in place of a mouse. Okada teaches details relating to MPEG audio/video standards (col. 1-2) which is a well known frame based compression that will allow multiplexing one or both for transmission or storage. Some details for calculating discard intervals is taught by Lee. Lee teaches that older methods for speeding up or slowing down analog playback may be performed using digital techniques on pages 740-741 as noted above. It would have been obvious for a person having ordinary skill in the pertinent art, at the time the invention was made, to store audio for playback as taught by Peters using a frame based compression such as the well-known MPEG standards developed for that purpose as taught by Okada and it would be especially obvious to calculate discard portions of the stored audio as claimed because Lee teaches that such a method was well

known over 30 years ago that would be much easier to implement using digital equipment (i.e. – modern computers) to provide sound reproduction rather than analog devices which required the use of multiple tape heads as fairly taught by Lee.

Applicant's arguments received 21 Oct 2005 are not persuasive. On page 10, the applicant argues that Peters does not disclose sound data having a plurality of frames which is clearly false because Peters does, in fact, recognize that referencing information by frames is the preferred method by those of skill in the art. The applicant acknowledges that MPEG is a frame-based system which makes the arguments against Peters all the more confusing since the applicant must recognize what those of ordinary skill in the art are doing.

The applicant argues that Lee teaches away from the invention by teaching that the keep interval and discard interval is always constant. However, if the applicant had bothered to look at figure 7, page 740 and figures 8 and 9 on page 741 **in context**, he would have noticed that figure 7 shows a variable discard interval, figure 8 shows a variable keep interval and figure 9 shows a combination in which both the keep and discard intervals vary depending on changes in the compression ratio. It is also significant to note that Lee illustrates a frequency $1/T$ which is also shown in figures 7-9 representing a splicing frequency or otherwise a fixed duration of T (time period) and one of ordinary skill in the art would identify a frame as a fixed time period duration. Lee shows repeating speech segments of fixed duration on page 741, right column. Therefore, it would have been obvious to one of ordinary skill in the art that the 30-year-old teachings of Lee could be applied to fixed duration frames having T (time period). In fact, the use of such time frames would simplify the calculation of compression ratios based upon the ratio between the number of frames to keep and the number to discard especially in view of the

figures 7-9 which are already in a format based on the fixed time period T. Okada suggests these types of compression ratio calculations in column 8, lines 10-20. The applicant's arguments against Lee do not take into account that in the 30 years since this article was written, frame based digital analysis has become notoriously well known (as taught by Peters and Okada) and that it is a simple mathematical conversion to relate a frame (a particular time segment) to a series of samples based upon the period of time between samples and the length of a frame. Based on figure 9 of Lee, for example, given a particular compression ratio, it would be trivial to calculate for fast playback that if a fixed interval is kept (i.e. – 1 frame), that skipping 1 frame would yield a compression ratio of 2, skipping 2 frames would yield compression of 3, etc. while the compression ratio calculations by Okada (noted above) are more versatile.

The ability to vary "reproduced" and "skipped" frame number is taught by the variable speed option of Peters noted above.

Claims 2-12 are variations that rely on notoriously well-known controls. See, for example, the keypress taught by Peters in col. 1 noted above. The "depression duration" of claim 8 is an obvious functional equivalent of the multiple keypresses taught by Peters to achieve the same result because pressing the key more than once causes it to be effectively pressed for a longer duration. This result is similarly taught by Peters' alternative shuttle and jog controls using a knob or a mouse which requires time, duration, distance and/or angle measures to calculate the relative speed change desired by the user.

NOTE: In addition to the obviousness arguments above, the Examiner takes Official Notice that measuring the duration of a keypress to vary the effect (i.e. – speed) proportionally to

such a duration is well known in order to address the possibility that the applicant would draft narrower claims in this regard. Although the applicant did not acknowledge that this is a feature that would have been well known to one of ordinary skill in the art as previously requested, the applicant did not challenge this Official Notice.

Claim 2 has merely been re-written in independent form.

Claim 3 has also been re-written in independent form. Changing “sampling frequency” will vary parameters as noted by Lee on page 741: sampling frequency in all these cases can be made variable to give additional control over the various parameters.

Claims 4-12 are rejected under similar arguments as for claims 1-3 as noted above.

6. Applicant's arguments have been addressed in the rejection above with clarifying statements.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Some correspondence may be submitted electronically. See the Office's Internet Web site <http://www.uspto.gov> for additional information.

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Mail Stop should be omitted if none is indicated.

Effective 14 January 2005, except correspondence for Maintenance Fees, Deposit Accounts (see 37 CFR 1.25(c)(4)), and Licensing and Review (see 37 CFR 5.1(c) and 5.2(c)), please address correspondence delivered by other delivery services (i.e. - Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolater, etc.) as follows:

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Alexandria, VA 22314

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Knepper whose telephone number is (571) 272-7607. The examiner can normally be reached on Monday-Thursday from 07:30 a.m.-6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil, can be reached on (571) 272-7602.

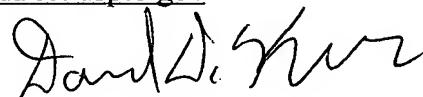
For the Group 2600 receptionist or customer service call (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Inquiries regarding the status of submissions

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relating to an application or questions on the Private PAIR systsem should be directed to the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028 between the hours of 6 a.m. and midnight Monday through Friday EST, or by email at ebc@uspto.gov. For general information about the PAIR system, see <http://pair-direct.uspto.gov>.



David D. Knepper
Primary Examiner
Art Unit 2654
January 26, 2006